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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,510	04/25/2001	Toyoaki Sugaya	KOT-0028	8365

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CANTOR COLBURN LLP
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EXAMINER

GIBBS, HEATHER D

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 10/07/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,510

Applicant(s)

SUGAYA ET AL.

Examiner

Heather D Gibbs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 21, 22 and 24-27 is/are rejected.
- 7) ☒ Claim(s) 19, 20, 23, 28 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 24 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Nuttin (U.S. Patent No. 4,611,799).

For claim 1, Nuttin discloses a image recording apparatus comprising a recording device to record an image on a recording medium by emitting ink onto the recording medium (32, Fig. 11; col. 5, lines 20-23); a cutting member to cut the recording medium after the recording device records the image, the cutting member being disposed downstream in respect to the recording device in a conveying-direction of the recording medium (50, Fig. 11; col. 6, lines 34-37); a second conveyance member to convey the recording medium, the second conveyance member being disposed at a position located between the recording device and the cutting member in the conveying direction of the recording medium (51, Fig. 9; col. 5, line 67 – col. 6, line 9); and a conveyance controller to control the second conveyance member so as to generate a slack of the recording medium at a section between the recording device and the second conveyance member in the conveying direction of the recording medium (col. 6, lines 10-17).

For claim 2, Nuttin discloses a first conveyance member being disposed upstream in respect to the second conveyance member in the conveying direction of the recording

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medium (35, Fig. 5; col. 5, lines 18-26); wherein the conveyance controller controls the first conveyance member (10, Fig. 6).

For claim 3, Nuttin discloses a conveyance controller, which controls the first conveyance member and the second conveyance member so as to eliminate the slack of the recording medium (col. 5, lines 19-36)

For claim 4, Nuttin discloses a conveyance controller which controls a conveying velocity of the recording medium conveyed by the second conveyance member (col. 2, lines 51-58).

For claim 5, Nuttin discloses a conveyance controller which controls a conveying timing of the recording medium conveyed by the second conveyance member (col. 2, lines 51-58; col. 4, lines 12-28).

For claim 24, Nuttin discloses an image recording apparatus comprising a recording device to record an image on a recording medium by emitting ink onto the recording medium (32, Fig. 11; col. 5, lines 20-23); a cutting member to cut the recording medium after the recording device records the image (50, Fig. 11; col. 6, lines 34-37); and an accumulating section to temporarily accumulate the recording medium on which the image is already recorded by the recording device, the accumulation section being disposed at a position located between the recording device and the cutting member (62, Fig. 11; col. 6, lines 38-42).

For claim 27, Nuttin discloses the accumulating section comprising an accumulation amount detector to detect an accumulating amount of the recording medium accumulated at the accumulating section (6, Fig. 1; col. 4, lines 8-32).

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-9, 11,13-16, 18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nuttin (U.S. Patent No. 4,611,799) as applied to claim 1 above, and further in view of Murai (U.S. Patent No. 5,829,897).

For claim 6, Nuttin fails to teach a cutting-position controller to control a cutting-position of the recording medium cut by the cutting member (col. 8, lines 34-44; col. 12, lines 13-17).

Murai discloses a cutting-position controller to control a cutting-position of the recording medium cut by the cutting member (col. 8, lines 34-44; col. 12, lines 13-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the printing apparatuses of Nuttin and Murai because both disclose image recording devices capable of cutting a recording medium. The improvement on Nuttin by Murai would allow a position controller to control the cutting-position of the recording medium.

For claim 7, Murai discloses a cutting-position detector to detect the cutting-position of the recording medium wherein the cutting-position controller controls the cutting-position based on a result detected by the cutting-position detector (col. 12, lines 13-24).

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For claim 8, Murai discloses a cutting-position detector, which detects a conveying amount of the recording medium (col. 12, lines 13-24).

For claim 9, Murai discloses a cutting-position detector with a leading-edge detecting element for detecting a leading edge of the recording medium (col. 3, lines 62-65).

For claim 11, Murai discloses a cutting-position detector, which detects a cutting-position designating mark provided on the recording medium (col. 12, lines 14-24).

For claim 13, Murai discloses that the position designating mark is recorded on the recording medium in advance before the recording device records the image onto the recording medium (col. 3, lines 49-56).

For claim 14, Murai does not directly teach that the cutting-position designating mark is a pattern having a property of absorbing invisible wavelengths. However, Murai discloses a detection sensor in Murai (29, Fig. 2) for detecting position designating marks (col. 8, lines 14-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to consider that the detection sensor in Murai could function as a sensor capable of sensing invisible wavelengths.

For claim 15, Murai does not directly teach that the cutting-position designation mark is provided on a recording surface of the recording medium, on which the image can be recorded. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to consider that the detection sensor in Murai (29, Fig. 2) could function equally well to detect position marks on the recording surface of the recording medium.

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For claim 16, Murai discloses a cutting-position designating mark is provided on a surface opposite to a recording surface of the recording medium, on which the image can be recorded (col. 8, lines 14-22).

For claim 18, Murai discloses a cutting member, which cuts the recording medium at two positions before and behind the cutting-position designating mark (col. 8, lines 27-44).

For claim 21, Murai discloses a cutting-position controller, which controls an interval distance between the two positions cut by the cutting member, corresponding to the image sizes to be recorded on the recording medium (col. 6, lines 52 - col. 7, lines 6).

For claim 22, Murai discloses dimensions of non-recording areas provided before and behind the cutting-position designating mark is controlled corresponding to image sizes to be recorded on the recording medium (Fig. 6; col. 13, lines 21-51).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nuttin (U.S. Patent No. 4,611,799), in view of Murai (U.S. Patent No. 5,829,897), as applied to claims 1, 6, and 7 and 9 above, and in further view of Nakadai et al. (U.S. Patent No. 5,268,766).

For claim 10, neither Nuttin nor Murai disclose a cutting-position detector provided with a plurality of leading-edge detecting elements, which are arranged at different positions relative to each other, corresponding to a plurality of image sizes to be recorded on the recording medium.

Nakadai discloses a cutting-position detector provided with a plurality of leading-edge detecting elements, which are arranged at different positions relative to each other, corresponding to a plurality of image sizes to be recorded on the recording medium (Abs.; col. 8, lines 13-63).

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6. Claims 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nuttin (U.S. Patent No. 4,611,799), in view of Murai (U.S. Patent No. 5,829,897), as applied to claims 1, 6, and 7 above, and in further view of Naruse (U.S. Patent No. 6,141,115).

For claims 12 and 17, neither Nuttin nor Murai disclose a recording device, which records a cutting-position designating mark onto the recording medium when the recording device records the image onto the medium.

Naruse discloses a recording device, which records a cutting-position designating mark onto the recording medium when the recording device records the image onto the medium (8A; col. 12, lines 21-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the printing apparatuses of Nuttin, Murai, and Naruse because all disclose image-recording devices, which use continuous web as the recording medium. The improvement on Nuttin and Murai would allow for the use of a recording medium, which does not have a pre-recorded designated mark thereon.

7. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nuttin (U.S. Patent No. 4,611,799) as applied to claim 24 above, and further in view of Mellquist et al. (U.S. Patent No. 5,707,024).

For claim 25, Nuttin fails to teach an accumulating section comprised of a fixed roller disposed at a stationary position to convey the recording medium and a movable roller moving in a variable position to apply a tension to a slack of the recording medium accumulated at the accumulation section.

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Mellquist discloses an accumulating section comprised of a fixed roller (13, Fig. 3) disposed at a stationary position to convey the recording medium and a movable roller (14', Fig. 3) moving in a variable position to apply a tension to a slack of the recording medium accumulated at the accumulation section (col. 3, line 56 – col. 4, line 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the printing apparatus of Nuttin and the apparatus for the displacement of material web of Mellquist because both disclose the displacement of continuous web material. The improvement on Nuttin by Mellquist would allow for smooth conveyance of the web material resulting in better recording quality.

For claim 26, Mellquist discloses the accumulating section comprising a forcing element to force the movable roller (col. 3, lines 56-65).

Allowable Subject Matter

8. Claims 19-20, 23, 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Sakamoto et al. (U.S. Patent No. 6,164,851) discloses a method and apparatus for forming images on a roll-shaped receiving sheet.

b. Yasui et al. (U.S. Patent No. 6,281,981) discloses an image printing apparatus.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather D Gibbs whose telephone number is 703-306-4152. The examiner can normally be reached on M-F 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hdg



Heather D Gibbs
Examiner
Art Unit 2622



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